



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

AF  
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In re the Application of  
David Salgado et al.

Art Unit: 2624

Application No.: 09/731,094

Examiner: POON, King Y.

Filed: December 6, 2000

Docket No.: A0598/XERZ 200373

For: METHOD AND APPARATUS FOR AUTOMATIC UPGRADE OF A  
PRODUCT'S PRINTER DRIVER

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FAY, SHARPE, FAGAN,  
MINNICH & MCKEE, LLP

July 17, 2006

Date

Joseph E. Waters

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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S) : David Salgado, et al.  
TITLE : METHOD AND APPARATUS FOR AUTOMATIC  
UPGRADE OF A PRODUCT'S PRINTER DRIVER  
APPLICATION NO. : 09/731,094  
FILED : December 6, 2000  
CONFIRMATION NO. : 9375  
EXAMINER : Poon, King Y.  
ART UNIT : 2624  
LAST OFFICE ACTION : February 22, 2006  
ATTORNEY DOCKET NO. : A0598/XERZ 2 00373

**APPEAL BRIEF UNDER 37 C.F.R. §41.37**

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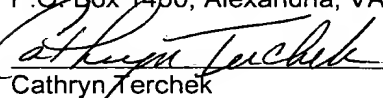
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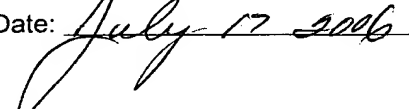
The fees required under 37 C.F.R. §41.20(b)(2) and any required petition for extension of time for filing this brief and fees therefor, are taken care of in the accompanying Transmittal of Appeal Brief.

Appellant files herewith an Appeal Brief in connection with the above-identified application wherein claims 1-11 were finally rejected in the Final Office Action of February 22, 2006.

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**I. REAL PARTY IN INTEREST (37 C.F.R. §41.37(c)(1)(i))**

The real parties in interest in this appeal are the inventors named in the caption of this brief (David Salgado and Srinivasa Murthy) and the assignee of their interests, Xerox Corporation.

**II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. §41.37(c)(1)(ii))**

Currently, it is believed that there are no other appeals or interferences in process or pending before the U.S. Patent and Trademark Office which the present application bases its priority from, or any cases which base their priority upon the present application, that will directly affect, or will be directly affected by, or will have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS (37 C.F.R. §41.37(c)(1)(iii))**

The status of the claims set forth after the Advisory Action mailed July 15, 2005 and the Notice of Panel Decision from Pre-Appeal Brief Review was, and is, as follows:

Allowed:	none
Rejected Claims:	1-11

The present appeal is directed specifically to claims 1-11.

**IV. STATUS OF THE AMENDMENT (37 C.F.R. §41.37(c)(1)(iv))**

No amendments have been made that have not been entered by the Examiner.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER (37 C.F.R. §41.37(c)(1)(v))**

Present claims 1 and 7 are the only independent claim pending in the application.

Claim 1 is directed to a method for automatically updating a printer driver on a computer comprising the steps of: contacting a remote network location using a contact subroutine installed on said computer; comparing a first version of the printer driver installed on the computer with a second version stored at the

remote network location using a determining subroutine installed on the computer; downloading and installing the printer driver from the remote location onto the computer if it is a more recent version of the printer driver than the first version currently installed on the computer using a downloading and installing subroutine installed on the computer; and uninstalling the version of the printer driver previously stored on the computer using an uninstalling subroutine installed on the computer. (page 7, line 10 – page 8, line 12).

Claim 7 is directed to a computer system that allows a first version of a printer driver stored on the computer system to be automatically updated, the computer system comprising a contacting subroutine configured to implement operations to contact a specified remote network location at which a second version of the printer driver is stored; a determining subroutine configured to implement operations to determine the version of the second version of the printer driver stored at the remote location; a comparing subroutine configured to implement operations to compare the first version of the printer driver stored on the computer system with the second version stored at the remote location; a downloading and installing subroutine configured to implement operations to download and install on the computer system the second version of the printer driver stored at the remote location if that version is a newer version than the first version currently stored on the computer system; and an uninstalling subroutine configured to implement operations to uninstall the first version of the printer driver stored on the computer system. (page 7, line 1 – page 8, line 12).

**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. §41.37(c)(1)(vi))**

In the final Office Action and subsequent advisory action, the Examiner maintained his rejection of claims 1, 3-10 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Nos. 6,006,034 to Heath (“Heath”), in view of 5,019,963 to Alderson (“Alderson”) and 5,692,111 to Marbry et al. (“Marbry”).

Claim 2 was rejected under §103(a) as being unpatentable over Heath in view of Alderson, Marbry and further in view of U.S. Patent No. 5,742,829 to Davis et al. (“Davis”). Claim 11 was rejected under §103(a) as being unpatentable over Heath in view of Alderson, Marbry and further in view of U.S. Patent No. 6,757,071 to Goodman et al. (“Goodman”).

**VII. ARGUMENTS (37 C.F.R. §41.37(c)(1)(vii))**

The Examiner rejected claims 1, and 3-10 under 35 U.S.C. §103(a) as being unpatentable over Heath in view of Alderson and Marbry. Appellants respectfully disagree and would like to reiterate their prior arguments.

Heath is directed to a system and method for automatic application version upgrading. In the process, a client machine calls to the server machine and downloads any new versions of application program components onto the client machine. Heath is specifically directed to application programs, not print drivers.

Marbry, on the other hand, discloses a process for installing printer configuration data and drivers on local workstations when a user attempts to print to a network printer. In response to a request to print to a network printer, printer configuration information is copied to the workstation. This configuration information is then used to print the print job.

Unlike Heath, Marbry does not deal with the updating of programs or program components. Rather, it deals merely with the downloading of printer configuration information necessary to execute a print job. There is no comparison of various versions of a print driver by the workstation, nor the deleting of old versions.

Alderson, on the other hand, deals with a data processing network including a plurality of workstations connected to a host processor. The workstations send a signal to the host at designated times indicating the version of certain programs they contain. The host then determines if the workstations have the latest version and, if not, sends a copy of the new file to replace the version on the workstations. Thus, it is the host which compares the versions and uploads newer versions of the programs to the workstations, not the workstations themselves.

First, there is no motivation to combine Heath with either Alderson or Marbry. One skilled in the art practicing the invention of Heath would not be motivated to use the teachings disclosed in Marbry or Alderson since these relate to different processes, and there is no indication that these teachings would be suitable for use therein. That is, as detailed above, Heath relates to the client initiated and conducted updating of application programs, while Marbry relates to the downloading of print configuration data that was not previously stored on a client workstation (i.e.

not an updating process), while Alderson relates to the server initiated and conducted process of updating programs on client workstations.

As is well understood, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 123 USPQ 349 (CCPA 1959). Here, that is exactly what the Examiner is proposing – changing the principle of operation of the references in an attempt to meet the recitations of the present claims. That is, Applicants submit that any proposed combination of Heath with Alderson and Marbry would inevitably change the principle of operation of the inventions since the methods of updating the client workstations is different and initiated by different computers.

Finally, in support of his rejection, the Examiner states that such a combination modifying Heath would have been obvious because “(a) it would have expand[ed] the use of Heath to create a bigger market, (b) it would have benefit[ed] the printer driver update process in the Internet environment...and (c) it would have reduced the server processor power for updating clients’ printer driver.” Assuming these assertions are correct, these are actually reasons why such a combination is NOT obvious. A well known secondary consideration of obviousness is whether there is a long-felt need for the invention. *Ecolochem, Inc. v. Southern California Edison Co.*, 56 USPQ2d 1065 (Fed. Cir. 2000). Here, the Examiner is admitting that such an invention would have filled such a need in the printer driver update industry. Thus, the fact that the Applicant is the first to invent such a process is an indication of its non-obviousness.

Thus, the proposed combination is impermissible and does not present a prima facie case of obviousness.

## **B. The Examiner’s Rebuttal**

In the final Office Action, the Examiner addressed the Appellant’s response by stating that “It is true that Heath’s invention is directed to application program and does not specifically mention printer driver. An application program is the name of a group consist of different software programs. There are many types of application programs such as word processor or printer driver.” The Examiner then

cites U.S. Patent No. 6,993,205 to Lorie et al ("Lorie") as defining a printer driver as an application program.

Appellant submits that the Examiner's reliance on Lorie is misplaced and that Lorie's definition is overbroad and not in accord with the accepted definition of what constitutes an "application program".

In this respect, Appellants submitted extrinsic evidence (Exhibits A-D, attached) to demonstrate that software is generally divided into two different classes: systems software and applications software ("applications" or "applications programs"). Specifically, please see the attached definitions from the [www.webopedia.com](http://www.webopedia.com) website, which defines "application" and "systems software". Exhibit A and B. "Applications" are defined as programs designed for end users such as word processors, etc., while "systems software" is defined as low level programs that interact with the computer at a basic level. Device drivers, including printer drivers, can be classified as such low level programs. Further support for the Appellant's position that a printer driver is not considered an application program can be gained from Exhibit C, which is a part of a computer terminology glossary from the Microsoft support website, which distinguishes printer drivers from application programs where it states under the heading for "printer driver" that "Application programs can communicate properly with a variety of printers by using printer drivers."

Still further support showing that a printer driver is not considered an application program can be found in [thefreedictionary.com](http://thefreedictionary.com) (Exhibit D), which defines a printer driver as "A software routine that converts an application program's printing request into the language the printer understands." Thus, Appellant respectfully disagrees with the Examiner's assertion that a printer driver is a type of application program. In fact, it is a separate type of software entirely. Thus, the Examiner's statement that a printer driver is an application program is against the manifest weight of the evidence.

### **C. The Examiner's Advisory Action and Rebuttal**

In response to this evidence, the Examiner stated in the advisory action:

"1) Exhibit C and D does not state that a printer driver is not an application program. 2) exhibit B clearly states that

system software includes compiler, loader, linkers, and debuggers. Clearly a printer driver is not compiler, loader, linker, operating system and debuggers. 3) Many printer driver has user interface that is designed for an end user to select functions of the printer. 4) Lorie clearly states that an application program such as a text processor or a printer driver. 5) Exhibit A states that an application software is unable to run without the operating system; printer driver such as adobe printer drivers run on top of operating systems such as Windows 95, 98, etc.”

To these comments, Appellants submit the following responses:

- 1) It is true that Exhibits C and D do not expressly state that “a printer driver is not an application program”. However, if the Examiner had read these Exhibits closely, he would have noticed that both make a distinction between “application programs” and a “printer driver”. That is, Exhibit C states that “Application programs can communicate properly with a variety of printers by using printer drivers”. Likewise, Exhibit D states that a printer driver is “a software routine that converts an application program’s printing request...” By distinguishing between printer drivers and application programs, these exhibits are clearly differentiating between the two, inherently making a statement that they are not the same without the need to make that express statement.
- 2) Again, the Examiner is correct that system software includes compilers, loaders, debuggers, and linkers. However, the Board will appreciate that the term “includes” is open ended and not limited to those types of software recited. Just because printer driver is not included as an example of a type of system software does not mean that it does not belong to that family. To be sure, program driver is not listed in the examples of “application software” in that exhibit either, so the Examiner’s position is not supported either.
- 3) The Examiner provides no examples or support for this statement, so Appellants submit that this assertion should be given no weight. Even if this is assumed to be true however, this fact means nothing. How does this support the Examiner’s position that printer drivers are application programs?
- 4) As detailed above, Lorie’s definition is overbroad and not in accord with accepted definitions. As the Board will appreciate, the fact that Lorie chose to define “application software” as including printer drivers is irrelevant to the present analysis, as patentee’s can be their own lexicographer. In the absence of a specific definition



in a description of an application, terms should be given their usual and customary definition in the art, which can be determined by consulting dictionaries and the like. Here, Appellants have provided a number of dictionary definitions showing that printer drivers are not considered application programs.

5) The Examiner provides no support for this statement, so Appellants urge the Board to give it no weight. Even assuming this is true, it is irrelevant, however. Many printer drivers do NOT run on top of operating systems and can function without them. That is, certain printer drivers do not need to have windows operating to run.

### CONCLUSION

In view of the above, Appellant respectfully submits that claims 1-11 are not anticipated or rendered obvious by the cited art.

Accordingly, it is respectfully requested that the Examiner's rejections be reversed.

Respectfully submitted,

FAY, SHARPE, FAGAN  
MINNICH & McKEE, LLP

Dated: \_\_\_\_\_

*July 17, 2006*

*Joseph E. Waters*

\_\_\_\_\_  
Joseph E. Waters, Reg. No. 50,427  
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Cleveland, Ohio 44114  
(216) 861-5582

**VIII. APPENDIX OF CLAIMS (37 C.F.R. §41.37(c)(1)(viii))**

1. (Currently amended) A method for automatically updating a printer driver on a computer comprising the steps of:
  - (A) contacting a remote network location using a contact subroutine installed on said computer;
  - (B) comparing a first version of the printer driver installed on the computer with a second version stored at the remote network location using a determining subroutine installed on said computer;
  - (C) downloading and installing the printer driver from the remote location onto the computer if it is a more recent version of the printer driver than said first version currently installed on the computer using a downloading and installing subroutine installed on said computer; and
  - (D) uninstalling the version of the printer driver previously stored on the computer using an uninstalling subroutine installed on said computer.
2. (Original) A method according to claim 1 in which the comparing step includes querying the second version of the driver by reading from the initialization file of the second version to determine its version.
3. (Original) A method according to claim 1 in which each step is performed at a designated time or upon the occurrence of a designated event without prompting by the computer user.
4. (Original) A method according to claim 1 in which the second version is stored at a location a system administrator can control which versions of printer drivers are stored there.
5. (Original) A method according to claim 1 in which the level of user interaction required in the updating process can be varied.

6. (Original) A method according to claim 1 in which the steps are performed without cessation or interruption of the computer system or its programs during the execution of the steps.
7. (Currently amended) A computer system that allows a first version of a printer driver stored on the computer system to be automatically updated, the computer system comprising
  - (A) a contacting subroutine configured to implement operations to contact a specified remote network location at which a second version of the printer driver is stored;
  - (B) a determining subroutine configured to implement operations to determine the version of the second version of the printer driver stored at the remote location;
  - (C) a comparing subroutine configured to implement operations to compare the first version of the printer driver stored on the computer system with the second version stored at the remote location;
  - (D) a downloading and installing subroutine configured to implement operations to download and install on the computer system the second version of the printer driver stored at the remote location if that version is a newer version than the first version currently stored on the computer system; and
  - (E) an uninstalling subroutine configured to implement operations to uninstall the first version of the printer driver stored on the computer system.
8. (Currently amended) The computer system of claim 7 wherein the subroutines are program subroutines of the printer driver.
9. (Original )The computer system of claim 7 wherein the new printer driver can be downloaded and installed without cessation or interruption of the computer system or its programs during its execution.

10. (Currently amended) The computer system of claim 7 wherein the contacting subroutine, determining subroutine, comparing subroutine, downloading and installing subroutine, and uninstalling subroutine are part of an install/upgrade application distinct from the printer driver.
11. (Previously presented) The computer system of claim 7 wherein the printer driver configured to be used with a xerographic print system.

**IX. EVIDENCE APPENDIX (37 C.F.R. §41.37(c)(1)(ix))**

Appendices A-D contain online dictionary definitions distinguishing between application programs and printer drivers filed in the Response dated April 24, 2006. This evidence was considered by the Examiner in the Advisory Action mailed May 16, 2006, but discounted as not being persuasive.

**X. RELATED PROCEEDINGS APPENDIX (37 C.F.R. §41.37(c)(1)(x))**

None.

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A program or group of programs designed for end users. Software can be divided into two general classes: systems software and applications software. Systems software consists of low-level programs that interact with the computer at a very basic level. This includes operating systems, compilers, and utilities for

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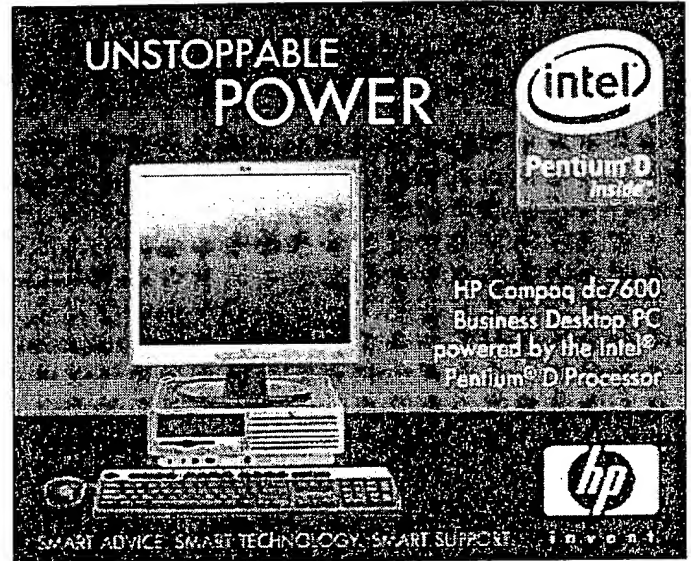
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managing computer resources.

In contrast, applications software (also called *end-user programs*) includes database programs, word processors, and spreadsheets. Figuratively speaking, applications software sits on top of systems software because it is unable to run without the operating system and system utilities.

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*n.* In word processors and other applications, the feature that displays a formatted document on the video monitor rather than sending it directly to the printer.

## primary channel

*n.* The data-transmission channel in a communications device, such as a modem. *Compare* secondary channel.

## Primary Domain Controller

*n.* 1. In Windows NT, a database providing a centralized administration site for resources and user accounts. The database allows users to log onto the domain, rather than onto a specific host machine. A separate account database keeps track of the machines in the domain and allocates the domain's resources to users. 2. In any local area network, the server that maintains the master copy of the domain's user accounts database and that validates logon requests. *Acronym:* PDC.

## primitive

*n.* 1. In computer graphics, a shape, such as a line, circle, curve, or polygon, that can be drawn, stored, and manipulated as a discrete entity by a graphics program. A primitive is one of the elements from which a large graphic design is created. 2. In programming, a fundamental element in a language that can be used to create larger procedures that do the work a programmer wants to do.

## printer

*n.* A computer peripheral that puts text or a computer-generated image on paper or on another medium, such as a transparency film. Printers can be categorized in any of several ways. The most common distinction is impact versus nonimpact. Impact printers physically strike the paper and are exemplified by pin dot-matrix printers and daisy-wheel printers; nonimpact printers include every other type of print mechanism, including laser, ink-jet, and thermal printers. Other possible methods of categorizing printers include (but are not limited to) the following: *See also* ball printer, character printer, color printer, daisy-wheel printer, dot-matrix printer, draft quality, electrophotographic printers, graphics printer, impact printer, ink-jet printer, ion-deposition printer, laser printer, LCD printer, LED printer, letter quality, line printer, near-letter-quality, nonimpact printer, page printer, parallel printer, serial printer, thermal printer, thermal wax-transfer printer, thimble printer. k:\compdict\database\4548.doc

## Printer Control Language

*n.* A printer control language from Hewlett-Packard, used in its LaserJet, DeskJet, and RuggedWriter printer lines. Because of the LaserJet's dominance in the laser printer market, Printer Control Language has become a de facto standard. *Also called* Hewlett-Packard Printer Control Language, PCL. *Acronym:* PCL.

## printer controller

*n.* The processing hardware in a printer, especially in a page printer. It includes the raster image processor, the memory, and any general-purpose microprocessors. A printer controller can also reside in a personal computer, attached via a high-speed cable to a printer that simply carries out its instructions. *Compare* printer engine.

## printer driver

*n.* A software program designed to enable other programs to work with a particular printer without concerning themselves with the specifics of the printer's hardware and internal "language." Application programs can communicate properly with a variety of printers by using printer drivers, which handle all of the subtleties of each printer so that the application program doesn't have to. Today graphical user interfaces offer their own printer drivers, eliminating the need for an application that runs under the interface to have its own printer driver.

## printer font

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A software routine that converts an application program's printing request into the language the printer understands. For example, PostScript printer drivers create a file that is accepted by PostScript printers. HP printer drivers create PCL files and so on. Drivers for Windows-only printers rasterize the pages (RIP function) and send the actual bit patterns to the printer, which are applied to the drum by the laser or LED array. Contrast with printer protocol.

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